

FEBRUARY 19, 2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-1307-1

TestAmerica Sample Delivery Group: SL1352
Client Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

For:

CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: General Mailbox



Authorized for release by:
2/19/2013 1:38:23 PM

Jayna Awalt
Project Manager I
jayna.awalt@testamericainc.com

LINKS

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results through

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Job ID: 160-1307-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
February 19, 2013
Attention: Scot Fitzgerald

SDG	: SL1352
Number of Samples	: 18 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: January 25, 2013

II. Introduction

Between January 22, 2013 and January 25, 2013, 18 water samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, the samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: W13-001, I13-012, S13-001, I13-003

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

IV. Definitions

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike
DUP- Laboratory Duplicate
MS- Matrix Spike
MSD- Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Job ID: 160-1307-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

MDL.

- **J** - For organic analyses, the sample is estimated and less than the RL.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution.
- **N** - For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **O** - For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **M** - For inorganic analyses, the precision was outside control limits.
- **P** - For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.

Anions

Batch: 30916

The following samples were diluted to bring the concentrations of Chloride and Sulfate within the calibration range in batch 30916: (160-1340-1 DU), (160-1340-1 MS), B2MP93 (160-1340-4), B2N781 (160-1340-2), B2N7M8 (160-1340-3), B2N7T0 (160-1340-1). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

The following samples were received outside of 48 hour holding time for Nitrite and Nitrate in batch 30916 [B2N7T0 (160-1340-1), B2N781 (160-1340-2), B2N7M8 (160-1340-3), B2MP93 (160-1340-4)]. Per client request and SDR13-096, the samples were to be analyzed within 2x hold. Upon receipt, samples were prepared for analysis and placed on the instrument within the 2x hold time. During analysis, an instrument computer malfunction destroyed the computer hard drive. A new hard drive was installed and data was recovered. However, due to shut down during analysis, the samples were at different points in the instrument run. Samples B2N7T0, B2N781 and B2MP93 were analyzed at 1x and 20x dilutions for Chloride, Nitrate and Sulfate. However, these samples needed additional dilutions that had not yet been performed due to instrument shutdown. Sample B2N7M8 had not been analyzed when shut down occurred. Per SDR13-096, Nitrate and Nitrite analysis was cancelled for these samples due to expired 2x hold.

Batch: 31887

The following samples were received outside of 48 hour holding time for Nitrite, Nitrate, and Ortho Phos in batch 31887. Per client request and SDR13-096, the samples were to be analyzed within 2x hold [B2N613 (160-1340-5), B2N614 (160-1340-6)]. Upon receipt, samples were prepared for analysis and placed on the instrument within the 2x hold time. During analysis, an instrument computer malfunction destroyed the computer hard drive. A new hard drive was installed and data was recovered. However, due to shut down during analysis, the samples were at different points in the instrument run. Sample B2N613 was analyzed and not affected. Sample B2N614 ran successfully for the initial run and subsequent 20x dilution runs for Chloride and Sulfate. During the 100x dilution run for Nitrate, instrument shut down affected the CCVs affecting the sample. Per SDR13-096, Nitrate analysis for sample B2N614 was cancelled.

The following sample was diluted to bring the concentrations of Chloride and Sulfate within the calibration range in batch 31887: B2N614 (160-1340-6). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

Sulfide

Batch: 29578

Sulfide was detected in method blank MB 160-29578/1 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "B". If the associated sample reported a result above the MDL and/or RL, the result has been "C" flagged.

FEBRUARY 19, 2013

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Job ID: 160-1307-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

There were no observations or nonconformances for the following methods:

Phenols

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the signature on the cover page has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

SAMPLE ISSUE RESOLUTION

SIR NUM SDR13-096
 REV NUM 0
 DATE INITIATED 1/28/2013

SAMPLE EVENT INFORMATION

SAF NUM(S) I13-012, I13-003, S13-001
 OPERABLE UNIT(S) 100-KR-4, NONE
 PROJECT(S) SURV13, CERC13
 SAMPLE EVENT TITLE(S) SURV13, CERC13
 LABORATORY Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES 5
 SAMPLE NUMBERS B2MP93, B2N614, B2N781, B2N7M8, B2N7T0
 SAMPLE MATRIX WATER
 COLLECTION DATE 1/23/2013
 SDG NUM SL1352

ISSUE BACKGROUND

CLASS Laboratory Issue

TYPE Analysis Holding Time Exceeded

DESCRIPTION The listed samples were diverted to TASL due to HVAC issues at WSCF. Upon receipt, samples were prepared for analysis and were placed on the instrument within the 2x hold as requested by CHPRC.

During analysis, the instrument's computer malfunctioned and the hard drive was destroyed. A new hard drive was installed and data were recovered.

However, due to the shut down during analysis, the samples were at different points in the run. Sample B2N614 ran successfully for initial run and subsequent 20x dilution runs. During 100x dilution run for nitrate, instrument shut down affected the CCVs bracketing the sample.

Samples B2N7T0, B2N781, and B2MP93 were analyzed at 1x and 20x dilutions for chloride, nitrate, and sulfate. However, these samples need additional dilutions that have not yet been performed due to instrument shut down.

Sample B2N7M8 was prepared and put on instrument but shut down occurred before it could be run.

All the listed samples still require analyses that would be performed outside 2x hold time.

DISPOSITION

DESCRIPTION PROPOSED DISPOSITION:

(1) Continue analyzing listed samples outside 2x hold time.

OR

(2) Cancel all nitrate and nitrite analyses for the listed samples and document in case narrative; complete any remaining analyses for the other anions.

JUSTIFICATION ACCEPTED DISPOSITION: Accept proposed disposition (2)

Submitted by: Jayna Awalt / TASL Date: 1/28/2012
 Accepted by: Karen Waters-Husted / CHPRC Date: 1/28/2013

CH2M Hill Plateau Remediation Company SL1352		C.O.C. # W13-001-111 Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector Roy Shepard	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	
SAF No. W13-001	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	
Project Title RCRA, JANUARY 2013	Logbook No. HNF-N-506.51/70	Ice Chest No. GRP-03-005	
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 794561778634	
Protocol RCRA	Priority: 45 Days	Offsite Property No. 30 JA 112313	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site Wide Generator Knowledge Information Form applies.	
Sample No.	Filter	No/Type Container	Time
B2N4T0	N	3x1-L aG	0910
B2N4T0	N	1x20-mL P	0910
		Activity Scan	
		Sample Analysis	Holding Time
		8041_PHENOLIC_GC: COMMON	7/40 Days
			6 Months
			Preservative
			Na2S2O3/Cool-4C
			None

Relinquished By Roy Shepard	Date/Time JAN 18 2013 1400	Received By SSU #1	Print JAN 18 2013 1400	Sign JAN 18 2013 1400	Date/Time JAN 18 2013 1400	Matrix *
Relinquished By SSU #1	Date/Time 0845	Received By CFurton	Print 0845	Sign 1-21-13	Date/Time 0845	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By CFurton	Date/Time 1400	Received By FSDEN	Print 1400	Sign 1-21-13	Date/Time 1400	DS = Drum Solids DL = Drum Liquids T = Tissue W1 = Wipe L = Liquid V = Vegetation X = Other
Relinquished By Fed Ex	Date/Time 1-21-13	Received By Jill Clark	Print 1-21-13	Sign 1-21-13	Date/Time 1-21-13	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Date/Time
A-6004-842 (REV 2)				PRINTED ON 12/3/2012		

CH2M Hill Plateau Remediation Company		SL1352		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # W13-001-096	
Collector SCOTT KING		Contact/Requester Karen Waters-Husted		Telephone No. 376-4650		Page 1 of 1			
SAF No. W13-001		Sampling Origin Hanford Site		Purchase Order/Charge Code 30007IES20					
Project Title RCRA, JANUARY 2013		Logbook No. HNF-N-506 36/55		Ice Chest No. GRP-03-005					
Shipped To (Lab) TestAmerica St. Louis		Method of Shipment Commercial Carrier		Bill of Lading/Air Bill No. 794561778634					
Protocol RCRA		Priority: 45 Days		Offsite Property No.					
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information Form applies.		Hold Time		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative	
B2N489	N	W	01-18-13	0715	3x1-L aG	8041_PHENOLIC_GC: COMMON	7/40 Days	Na2S2O3/Cool-4C	
B2N489	N	W	✓	✓	1x20-mL P	Activity Scan	6 Months	None	

Relinquished By SCOTT KING	Print <i>Scott King</i>	Sign	Date/Time JAN 18 2013 1340	Received By SSU #1	Sign #1	Print	Date/Time JAN 18 2013 1340
Relinquished By SSU #1	Print 1-21-13	Sign 0845	Date/Time 0845	Received By CFulton	Sign 1-21-13	Print 0845	Date/Time 0845
Relinquished By CFulton	Print 1-21-13	Sign 1400	Date/Time 1400	Received By FEDEx	Sign	Print	Date/Time
Relinquished By FEDEx	Print 1-21-13	Sign 1-21-13	Date/Time 1-21-13	Received By Jill Clarke	Sign 1-21-13	Print 0900	Date/Time 0900
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)			
Disposed By				Date/Time			

CH2M Hill Plateau Remediation Company		SL1352		C.O.C. # W13-001-097	
Collector SCOTT KING		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. W13-001	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20			
Project Title RCRA, JANUARY 2013	Logbook No. HNF-N-50636/56	Ice Chest No. GRP-03-005			
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 794561778634			
Protocol RCRA	Priority: 45 Days	Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information Form applies.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	*	Date	Time	No/Type Container
B2N490	N	W	6-18-13	1155	3x1-L aG
B2N490	N	W	✓	✓	1x20-mL P
Sample Analysis		Holding Time		Preservative	
8041_PHENOLIC_GC: COMMON		7/40 Days		Na2S2O3/Cool-4C	
Activity Scan		6 Months		None	

Relinquished By SCOTT KING	Print <i>Scott King</i>	Sign <i>Scott King</i>	Date/Time JAN 18 2013 1340	Received By <i>SSU #1</i>	Print <i>SSU #1</i>	Sign <i>SSU #1</i>	Date/Time JAN 18 2013 1340	Matrix *
Relinquished By <i>SSU #1</i>	Print <i>SSU #1</i>	Sign <i>SSU #1</i>	Date/Time 1-21-13 0845	Received By <i>CFulton</i>	Print <i>CFulton</i>	Sign <i>CFulton</i>	Date/Time 1-21-13 0845	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By <i>SSU #1</i>	Print <i>SSU #1</i>	Sign <i>SSU #1</i>	Date/Time 1-21-13 1400	Received By <i>FEDER</i>	Print <i>FEDER</i>	Sign <i>FEDER</i>	Date/Time 1-22-13 0900	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By <i>SSU #1</i>	Print <i>SSU #1</i>	Sign <i>SSU #1</i>	Date/Time 1-22-13 0900	Received By <i>Jill Clark</i>	Print <i>Jill Clark</i>	Sign <i>Jill Clark</i>	Date/Time 1-22-13 0900	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

IMPORTANT!Super Bowl XLVII is causing delays in the New Orleans, LA area. [Learn More](#)**794561778634**Ship (P/U) date :
Mon 1/21/2013 4:00 pm

RICHLAND, WA US

**Delivered**

Signed for by: B.DANIELS

Actual delivery :
Tues 1/22/2013 9:03 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 1/22/2013 - Tuesday		
9:03 am	Delivered	EARTH CITY, MO
6:35 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:29 am	At local FedEx facility	EARTH CITY, MO
5:37 am	At destination sort facility	BERKELEY, MO
4:45 am	Departed FedEx location	MEMPHIS, TN
12:17 am	Arrived at FedEx location	MEMPHIS, TN
- 1/21/2013 - Monday		
5:05 pm	Left FedEx origin facility	PASCO, WA
4:00 pm	Picked up	PASCO, WA
11:29 am	Shipment information sent to FedEx	

Local Scan Time

Shipment Facts

Tracking number	794561778634	Service	FedEx Priority Overnight
Weight	89 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	89 lbs / 40.4 kgs
Shipper reference	GRP-03-005	Packaging	Your Packaging
Special handling section	Deliver Weekday		

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CH2MHill Plateau Remediation Company		SL1352		C.O.C. # I13-012-016		Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							
Collector	SCOTT KING	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650		
SAF No.	I13-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	30007IES20		
Project Title	2ZP1, JANUARY 2013	Logbook No.	HNF-N-5063e/55	Ice Chest No.	GRP-03-005		
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	794561778634		
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.					
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time
B2N5W9	N	W	01-18-13	0947	3x500-mL G/P	9034_SULFIDE: COMMON	7 Days
B2N5W9	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months
						Preservative	ZnAc+NaOH to pH > 9/Cool-4C
							None

Relinquished By	SCOTT KING	Print	Sign	Date/Time	Received By	SSC #1	Print	Sign	Date/Time	Matrix *
Relinquished By	SSC #1	1-21-13	0845	JAN 18 2013 1340	Received By	CFulton	Print	Sign	1-21-13 0845	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By	CFulton	1-21-13	1400	JAN 18 2013 1340	Received By	FED EX	Print	Sign	1-21-13 0845	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By	FED EX	1-21-13	1400	JAN 18 2013 1340	Received By	Fuller	Print	Sign	1-22-13 0900	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time

IMPORTANT!Super Bowl XLVII is causing delays in the New Orleans, LA area. [Learn More](#)**794561778634**Ship (P/U) date :
Mon 1/21/2013 4:00 pm

RICHLAND, WA US

**Delivered**
Signed for by: B.DANIELSActual delivery :
Tues 1/22/2013 9:03

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 1/22/2013 - Tuesday		
9:03 am	Delivered	EARTH CITY, MO
6:35 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:29 am	At local FedEx facility	EARTH CITY, MO
5:37 am	At destination sort facility	BERKELEY, MO
4:45 am	Departed FedEx location	MEMPHIS, TN
12:17 am	Arrived at FedEx location	MEMPHIS, TN
- 1/21/2013 - Monday		
5:05 pm	Left FedEx origin facility	PASCO, WA
4:00 pm	Picked up	PASCO, WA
11:29 am	Shipment information sent to FedEx	

Local Scan

Shipment Facts

Tracking number	794561778634	Service	FedEx Priority Overnight
Weight	89 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	89 lbs / 40.4 kgs
Shipper reference	GRP-03-005	Packaging	Your Packaging
Special handling section	Deliver Weekday		

CR 091

CH2M Hill Plateau Remediation Company		SL1352		C.O.C. # W13-001-094		Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							
Collector	DAVE FLOYD	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650		
SAF No.	W13-001	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20		
Project Title	RCRA, JANUARY 2013	Logbook No.	HNF-N-506 SL171	Ice Chest No.	CLS-288		
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7945 7050 7126		
Protocol	RCRA	Priority:	45 Days	Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		Site Wide Generator Knowledge Information Form applies.					
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time
B2N481	N	W	JAN 21 2013	1234	3x1-L aG	8041_PHENOLIC_GC: COMMON	7/40 Days
B2N481	N	W			1x20-mL P	Activity Scan	6 Months
						Preservative Na2S2O3/Cool-4C	
						None	

Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge W1 = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	DAVE FLOYD		JAN 21 2013 1511	SSU-1			JAN 21 2013 1511	
Relinquished By	MA White		JAN 22 2013 0930	CHPRC	MA White		JAN 22 2013 0930	
Relinquished By	CHPRC		JAN 22 2013 1400	FedEx				
Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time	
Relinquished By	FedEx			Brian Daniels			1/23/12 690	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				
				Disposed By				Date/Time
				Date/Time				

CH2M Hill Plateau Remediation Company SL1352		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # W13-001-098 Page 1 of 1
Collector D.J. Woehle CHPRC	Contact/Requester Karen Waters-Husted	Telephone No.	376-4650			
SAF No. W13-001	Sampling Origin Hanford Site	Purchase Order/Charge Code	300071ES20			
Project Title RCRA, JANUARY 2013	Logbook No. HNF-N-50654121	Ice Chest No.	CWS-288			
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.	794520507126			
Protocol RCRA	Priority: 45 Days	Offsite Property No.				
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information Form applies.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis
B2N496	N	W	1/21/13	1120	3x1-L aG	8041_PHENOLIC_GC: COMMON
B2N496	N	W			1x20-mL P	Activity Scan
						Holding Time 7/40 Days
						6 Months
						Preservative Na2S2O3/Cool-4C
						None

Relinquished By D.J. Woehle CHPRC	Print [Signature]	Sign	Date/Time JAN 21 2013 1530	Received By SSU-1	Print [Signature]	Sign	Date/Time JAN 21 2013 1530	Matrix *
Relinquished By SSU-1			Date/Time JAN 22 2013 0930	Received By MA White CHPRC	Print [Signature]	Sign	Date/Time JAN 22 2013 0930	Matrix *
Relinquished By MA White CHPRC	Print [Signature]	Sign	Date/Time JAN 22 2013 1400	Received By FEDEx	Print [Signature]	Sign	Date/Time JAN 22 2013 1400	Matrix *
Relinquished By			Date/Time	Received By Brian Daniels	Print [Signature]	Sign	Date/Time 1/23/12 0900	Matrix *
FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By Date/Time				

CH2MHill Plateau Remediation Company		C.O.C. # W13-001-101	
SL352		Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector DAVE FLOYD	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	
SAF No. W13-001	Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20	
Project Title RCRA, JANUARY 2013	Logbook No. HNF-N-506 51 / 71	Ice Chest No. CWS-288	
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 7945 7050 7126	
Protocol RCRA	Priority: 45 Days	Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies.	
		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	*	Date
B2N4B7	N	W	JAN 21 2013 1114
B2N4B7	N	W	↓
No/Type Container	Time	Sample Analysis	Holding Time
3x1-L aG	8041_PHENOLIC_GC: COMMON		7140 Days
1x20-mL P	Activity Scan		6 Months
			Preservative
			Na2S2O3/Cool~4C
			None

Relinquished By DAVE FLOYD	Print	Signature	Date/Time JAN 21 2013 1511	Received By SSU-1	Print	Signature	Date/Time JAN 21 2013 1511	Matrix *
Relinquished By SSU-1	Print	Signature	Date/Time JAN 22 2013 0930	Received By MA White	Print	Signature	Date/Time JAN 22 2013 0930	Matrix *
Relinquished By MA White	Print	Signature	Date/Time JAN 22 2013 1400	Received By FED EX	Print	Signature	Date/Time JAN 22 2013 0930	Matrix *
Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time	Matrix *
				Brian Haninly			1/23/12 0912	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				
PRINTED 0 11/21/2012				A-6004-842 (REV 2)				

CH2M Hill Plateau Remediation Company		C.O.C. # W13-001-093	
SL352		Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector	D.J. Woehle CHPRC	Contact/Requester	Karen Waters-Husted
SAF No.	W13-001	Sampling Origin	Hanford Site
Project Title	RCRA, JANUARY 2013	Logbook No.	HNF-N-506 <u>54121</u>
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier
Protocol	RCRA	Priority:	45 Days
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Site Wide Generator Knowledge Information Form applies.	
Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Bill of Lading/Air Bill No. <u>79457046 9978</u>	
Offsite Property No.		Telephone No. 376-4650	
Purchase Order/Charge Code 300071ES20		Ice Chest No. <u>6WS - 210</u>	
Sample No.		Holding Time	
B2N477	3x1-L aG	8041_PHENOLIC_GC: COMMON	7/40 Days
B2N477	1x20-mL P	Activity Scan	6 Months
Sample Analysis		Preservative	
Na2S2O3/Cool~4C		None	

Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time
D.J. Woehle CHPRC	<i>[Signature]</i>		JAN 21 2013 1530	SSU-1	554-1		JAN 21 2013 1530
Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time
MA White CHPRC	<i>[Signature]</i>		JAN 22 2013 0930	MA White CHPRC	<i>[Signature]</i>		JAN 22 2013 0930
Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time
MA White CHPRC	<i>[Signature]</i>		JAN 22 2013 1400	Fedex			JAN 22 2013 1400
Relinquished By	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time
MA White CHPRC	<i>[Signature]</i>		JAN 22 2013 1400	Bran Danialb	<i>[Signature]</i>		1/23/12 0900
FINAL SAMPLE DISPOSITION				Disposed By			
Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time			

CH2MHill Plateau Remediation Company		SL1352		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # W13-001-095	
Collector D.J. Woehle CHPRC		W13-001		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650		Page 1 of 1		
SAF No.		W13-001		Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20				
Project Title RCRA, JANUARY 2013				Logbook No. HNF-N-50654/21	Ice Chest No. GWS-210				
Shipped To (Lab) TestAmerica St. Louis				Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 79457046 9978				
Protocol RCRA				Priority: 45 Days	Offsite Property No.				
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				SPECIAL INSTRUCTIONS Site Wide Generator Knowledge Information Form applies.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative	
B2N485	N	W	1/21/13	0950	3x1-L aG	8041_PHENOLIC_GC: COMMON	7/40 Days	Na2S2O3/Cool-4C	
B2N485	N	W			1x20-mL P	Activity Scan	6 Months	None	

Relinquished By D.J. Woehle CHPRC	Print [Signature]	Sign [Signature]	Received By SSU-1	Print SSU-1	Sign [Signature]	Date/Time JAN 21 2013 1530	Matrix *
Relinquished By SSU-1	Print [Signature]	Sign [Signature]	Received By MA White CHPRC	Print MA White	Sign [Signature]	Date/Time JAN 22 2013 0930	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By MA White CHPRC	Print [Signature]	Sign [Signature]	Received By FedEx	Print FedEx	Sign [Signature]	Date/Time JAN 22 2013 1400	
Relinquished By [Signature]	Print [Signature]	Sign [Signature]	Received By Brian Hancock	Print Brian Hancock	Sign [Signature]	Date/Time 1/23/12 0900	
FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process)							Date/Time

IMPORTANT!Super Bowl XLVII is causing delays in the New Orleans, LA area. [Learn More](#)**794570507126**Ship (P/U) date :
Tues 1/22/2013 3:19 pm

RICHLAND, WA US

**Delivered**
Signed for by: J.CLARKActual delivery :
Wed 1/23/2013 9:03

EARTH CITY, MO US

Let us tell you when your shipment arrives. Sign up for delivery notifications**Travel History**

Date/Time	Activity	Location
- 1/23/2013 - Wednesday		
9:03 am	Delivered	EARTH CITY, MO
6:42 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:37 am	At local FedEx facility	EARTH CITY, MO
5:07 am	At destination sort facility	BERKELEY, MO
4:18 am	Departed FedEx location	MEMPHIS, TN
12:17 am	Arrived at FedEx location	MEMPHIS, TN
- 1/22/2013 - Tuesday		
5:15 pm	Left FedEx origin facility	PASCO, WA
3:19 pm	Picked up	PASCO, WA
12:26 pm	Shipment information sent to FedEx	

Local Scan

Shipment Facts

Tracking number	794570507126	Service	FedEx Priority Overnight
Weight	82 lbs	Dimensions	28x16x16 in.
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	82 lbs / 37.2 kgs	Shipper reference	GWS-288
Packaging	Your Packaging	Special handling section	Deliver Weekday

Super Bowl XLVII is causing delays in the New Orleans, LA area. [Learn More](#)



Actual delivery :
Wed 1/23/2013 9:03
 EARTH CITY, MO US



Tracking number	794570469978	Service	FedEx Priority Overnight
Weight	50 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	50 lbs / 22.7 kgs
Shipper reference	GWS-210	Packaging	Your Packaging
Special handling section	Deliver Weekday		

CH2MHill Plateau Remediation Company SL1352		C.O.C. # S13-001-386	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector FM Hall CHPRC S13-001	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1
SAF No. SURV, JANUARY 2013	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	
Project Title Waste Sampling & Characterization	Logbook No. HNF-N-506 54/22	Ice Chest No. 16413	6WS-292
Shipped To (Lab) FARL TAE	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. 16413	794591187830
Protocol SURV	Priority: 45 Days	Offsite Property No. 16413	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No. B2N770	Filter N	* W	Time 12/3/13 0930
No/Type Container 1x500-mL P	Sample Analysis 300.0_ANIONS_IC: List-1 (5)	Holding Time 48 Hours	Preservative Cool~4C

Relinquished By FM Hall CHPRC	Print [Signature]	Sign [Signature]	Date/Time JAN 23 2013 1530	Received By S5U-1	Print 55U-1	Sign [Signature]	Date/Time JAN 23 2013 1530	Matrix *
Relinquished By S5U #1	Print [Signature]	Sign [Signature]	Date/Time JAN 24 2013 0800	Received By L.D. Wall CHPRC	Print L.D. Wall	Sign [Signature]	Date/Time JAN 24 2013 0800	Matrix *
Relinquished By L.D. Wall CHPRC	Print [Signature]	Sign [Signature]	Date/Time JAN 24 2013 1400	Received By FedEx	Print FedEx	Sign [Signature]	Date/Time JAN 24 2013 1400	Matrix *
Relinquished By FedEx	Print [Signature]	Sign [Signature]	Date/Time JAN 25 2013 0930	Received By Jill Clarke	Print Jill Clarke	Sign [Signature]	Date/Time JAN 25 2013 0930	Matrix *
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time
PRINTED O 11/21/2012				A-6004-842 (REV 2)				

CH2M Hill Plateau Remediation Company		C.O.C. # S13-001-315	
54352		Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted
SAF No.	S13-001	Sampling Origin	Hanford Site
Project Title	SURV, JANUARY 2013	Logbook No.	HNF-N-506 54 122
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE
Protocol	SURV	Priority:	45 Days
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		Hold Time	
		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter	* Time	Date
B2N781	N	W	1/23/13 1058
No/Type Container	1x500-mL P	Sample Analysis	300.0 ANIONS_IC: List-1 (5)
Holding Time	48 Hours	Preservative	Cool-4C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FM Hall			JAN 23 2013 1536	SSU-1			JAN 23 2013 1530
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
SSU-1			JAN 24 2013 0800	L.D. Wall			JAN 24 2013 0800
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. Wall			JAN 24 2013 1400	FEDEX			JAN 24 2013 0800
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Red Ex				Del Cloud			1.25.13 0930
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			
				Date/Time			

CH2M Hill Plateau Remediation Company		SL1352		C.O.C. # S13-001-369		Page 1 of 1
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						
Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted			
SAF No.	S13-001	Sampling Origin	Hanford Site			
Project Title	SURV, JANUARY 2013	Logbook No.	HNF-N-506 54/22			
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE			
Protocol	SURV	Priority:	45 Days			
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis
B2N7M8	N	W	1/23/13	1235	1x500-mL P	300.0 ANIONS_IC: List-1 (5)
				Holding Time	Preservative	
				48 Hours	Cool-4C	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
FM Hall CHPRC			JAN 23 2013 1530		SSW-1		JAN 23 2013 1530	S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WL = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
SSW#1			JAN 24 2013 0800	LD. Wall CHPRC	R.D. Wall		JAN 24 2013 0800	
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
LD. Wall CHPRC			JAN 24 2013 1400	FED EX			JAN 24 2013 1400	
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
Fed Ex			JAN 24 2013 1400	Jill Clark	Jill Clark		1-25-13 0930	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

CH2MHill Plateau Remediation Company SL1352		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # I13-003-116 Page 1 of 1	
Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	I13-003	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	100KR4(2), NOVEMBER 2012	Logbook No.	HNF-N-506 54 / 22	Ice Chest No.	605-292
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	1794591187830
Protocol	CERCLA	Priority:	31 Days	Offsite Property No.	12413 N/A
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647. FY12 and FY13 samples cannot be in the same SDG.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	*	Date	Time	No/Type Container
B2MP93	N	W	1/23/13	1416	1x500-mL P
			Sample Analysis		Holding Time
					48 Hours
					Preservative
					Cool~4C

Relinquished By FM Hall CHPRC	Print <i>[Signature]</i>	Sign	Date/Time JAN 23 2013 1530	Received By	Print SSU-1	Sign	Date/Time JAN 23 2013 1530	Matrix *
Relinquished By SSU #1	Print	Sign	Date/Time JAN 24 2013 0800	Received By L.D. Wall CHPRC	Print L.D. Wall	Sign	Date/Time JAN 24 2013 0800	Matrix *
Relinquished By L.D. Wall CHPRC	Print L.D. Wall	Sign	Date/Time JAN 24 2013 1400	Received By FED EX	Print	Sign	Date/Time	Matrix *
Relinquished By Fed EX	Print Fed EX	Sign	Date/Time	Received By Jill Clark	Print Jill Clark	Sign	Date/Time 1-24-13 0930	Matrix *
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				
				Date/Time				

43/b5

CH2MHill Plateau Remediation Company		C.O.C. # I13-012-040	
SL352		Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted
SAF No.	I13-012	Sampling Origin	Hanford Site
Project Title	2ZP1, JANUARY 2013	Logbook No.	HNF-N-506
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE
Protocol	CERCLA	Priority:	45 Days
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	*	Date
B2N613	N	W	1/23/13
			0730
		No/Type Container	1x500-mL P
		Sample Analysis	300.0 _ANIONS_IC: List-1 + Brom_Phosp (7)
		Holding Time	48 Hours
		Preservative	Cool-4C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FM Hall			JAN 23 2013	SSW-1			JAN 23 2013
CHPRC			1530	L.D. Wall			JAN 24 2013
SSW #1			JAN 24 2013	CHPRC			0800
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. Wall			JAN 24 2013	FEDEX			JAN 24 2013
CHPRC			1400				0930
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FEDEX			JAN 24 2013	Geo Clark			JAN 24 2013
			0930				0930
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time	

CH2MHill Plateau Remediation Company		SL1352		C.O.C. # I13-012-043		Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							
Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650		
SAF No.	I13-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	30007IES20		
Project Title	2ZP1, JANUARY 2013	Logbook No.	HNF-N-50654123	Ice Chest No.	6WS-292		
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	79459118-7830		
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time		Total Activity Exemption: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.					
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time
B2N614	N	W	1/23/13	1518	1x500-mL P	300.0 ANIONS_IC: List-1 + Brom_Phosp (7)	48 Hours
						Preservative	Cool-4C





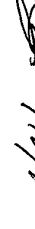

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
FM Hall CHPRC			JAN 23 2013 1530	SSU-1			JAN 23 2013 1530	S = Soil = Drum Solids SE = Sediment = Drum Liquids SO = Solid = Tissue SL = Sludge = Wipe W = Water = Liquid O = Oil = Vegetation A = Air = Other
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
SSU #1			JAN 24 2013 0800	LD Wall CHPRC			JAN 24 2013 0800	
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
LD Wall CHPRC			JAN 24 2013 1400	FED EX			JAN 24 2013 1400	
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
Fed Ex				Jill Clark			1-25-13 0930	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, used in process)				
PRINTED ON 1/2/2013				A-6004-842 (REV 2)				

2/19/2013

A-6004-842 (REV 2)

43165

CH2M/Hill Plateau Remediation Company				C.O.C. # I13-012-022			
S1352				Page 1 of 1			
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							
Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650		
SAF No.	I13-012	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20		
Project Title	2ZP1, JANUARY 2013	Logbook No.	HNF-N-506	Ice Chest No.	605-236		
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	79459122200		
Protocol	CERCLA	Priority:	45 Days	Offsite Property No.	N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				SPECIAL INSTRUCTIONS Hold Time 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			
				Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time
B2N6'10	N	W	1/23/13	1518	3x500-mL G/P	9034_SULFIDE: COMMON	7 Days
B2N6'10	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months
						Preservative	ZnAc+NaOH to pH > 9/Cool-4C
							None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
FM Hall CHPBC			JAN 23 2013 1530	SSU - 1		JAN 23 2013	1530	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By	SSU #1		Date/Time 0710	FM Hall			Date/Time 0710	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By	FM Hall		Date/Time 1400	Fed Ex			Date/Time 1-24-13	
Relinquished By	Fed Ex		Date/Time 1-24-13				Date/Time 1-25-13	
Disposal Method (e.g., Return to customer, used in process)				Disposed By		Date/Time		
FINAL SAMPLE DISPOSITION				Jill Clarke		0930		

IMPORTANT!Super Bowl XLVII is causing delays in the New Orleans, LA area. [Learn More](#)**794591187830**

Ship (P/U) date :
Thur 1/24/2013 3:44 pm
 RICHLAND, WA US



Delivered
 Signed for by: B.DANIELS

Actual delivery :
Fri 1/25/2013 9:25 am
 EARTH CITY, MO US

Let us tell you when your shipment arrives. Sign up for delivery notifications

Travel History

Date/Time	Activity	Location
- 1/25/2013 - Friday		
9:25 am	Delivered	EARTH CITY, MO
7:13 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:09 am	At local FedEx facility	EARTH CITY, MO
5:06 am	At destination sort facility	BERKELEY, MO
4:16 am	Departed FedEx location	MEMPHIS, TN
12:39 am	Arrived at FedEx location	MEMPHIS, TN
- 1/24/2013 - Thursday		
5:05 pm	Left FedEx origin facility	PASCO, WA
3:44 pm	Picked up	PASCO, WA
11:14 am	Shipment information sent to FedEx	

Local Scan

Shipment Facts

Tracking number	794591187830	Service	FedEx Priority Overnight
Weight	43 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	43 lbs / 19.5 kgs
Shipper reference	GWS-292	Packaging	Your Packaging
Special handling section	Deliver Weekday		

IMPORTANT!Super Bowl XLVII is causing delays in the New Orleans, LA area. [Learn More](#)**794591222001**

Ship (P/U) date :
Thur 1/24/2013 3:44 pm
 RICHLAND, WA US



Delivered
 Signed for by: B.DANIELS

Actual delivery :
Fri 1/25/2013 9:25 am
 EARTH CITY, MO US

SAVE \$25

on a \$100 color print order from
 FedEx Office® Print Online.

Save now ▶

Valid 1/7/13 – 2/15/13.
 Limitations apply.

**Travel History**

Date/Time	Activity	Location
- 1/25/2013 - Friday		
9:25 am	Delivered	EARTH CITY, MO
7:13 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:09 am	At local FedEx facility	EARTH CITY, MO
5:06 am	At destination sort facility	BERKELEY, MO
4:16 am	Departed FedEx location	MEMPHIS, TN
12:39 am	Arrived at FedEx location	MEMPHIS, TN
- 1/24/2013 - Thursday		
5:05 pm	Left FedEx origin facility	PASCO, WA
3:44 pm	Picked up	PASCO, WA
11:17 am	Shipment information sent to FedEx	

Local Scan

Shipment Facts

Tracking number	794591222001	Service	FedEx Priority Overnight
Weight	43 lbs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	43 lbs / 19.5 kgs
Shipper reference	GWS-236	Packaging	Your Packaging
Special handling section	Deliver Weekday		

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

Login Number: 1307

List Number: 1

Creator: Clarke, Jill

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

Login Number: 1309

List Number: 1

Creator: Clarke, Jill

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

Login Number: 1317

List Number: 1

Creator: Daniels, Brian

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FEBRUARY 19, 2013

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-1307-1

SDG Number: SL1352

Login Number: 1340

List Number: 1

Creator: Clarke, Jill

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
B	Estimated result. Result is less than the RL, but greater than MDL
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Analyzed for but not detected.
C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was $\leq 5X$ the blank concentration.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method	Method Description	Protocol	Laboratory
8041A	Phenols (GC)	SW846	TAL SL
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SL

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

FEBRUARY 19, 2013

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-1307-1	B2N4T0	Water	01/18/13 09:10	01/22/13 11:34
160-1307-2	B2N489	Water	01/18/13 07:15	01/22/13 11:34
160-1307-3	B2N490	Water	01/18/13 11:55	01/22/13 11:34
160-1309-1	B2N5X0	Water	01/18/13 09:47	01/22/13 09:00
160-1309-2	B2N5W9	Water	01/18/13 09:47	01/22/13 09:00
160-1317-1	B2N481	Water	01/21/13 12:34	01/23/13 09:00
160-1317-2	B2N496	Water	01/21/13 11:20	01/23/13 09:00
160-1317-3	B2N4B7	Water	01/21/13 11:14	01/23/13 09:00
160-1317-4	B2N477	Water	01/21/13 12:37	01/23/13 09:00
160-1317-5	B2N485	Water	01/21/13 09:50	01/23/13 09:00
160-1340-1	B2N7T0	Water	01/23/13 09:30	01/25/13 09:29
160-1340-2	B2N781	Water	01/23/13 10:58	01/25/13 09:29
160-1340-3	B2N7M8	Water	01/23/13 12:35	01/25/13 09:29
160-1340-4	B2MP93	Water	01/23/13 14:16	01/25/13 09:29
160-1340-5	B2N613	Water	01/23/13 07:30	01/25/13 09:29
160-1340-6	B2N614	Water	01/23/13 15:18	01/25/13 09:29
160-1340-7	B2N609	Water	01/23/13 07:30	01/25/13 09:29
160-1340-8	B2N610	Water	01/23/13 15:18	01/25/13 09:29

FEBRUARY 19, 2013 Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Client Sample ID: B2N4T0

Lab Sample ID: 160-1307-1

No Detections

Client Sample ID: B2N489

Lab Sample ID: 160-1307-2

No Detections

Client Sample ID: B2N490

Lab Sample ID: 160-1307-3

No Detections

Client Sample ID: B2N5X0

Lab Sample ID: 160-1309-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	0.60	B	1.0	0.083	mg/L	1		9034	Total/NA

Client Sample ID: B2N5W9

Lab Sample ID: 160-1309-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	0.60	B	1.0	0.083	mg/L	1		9034	Total/NA

Client Sample ID: B2N481

Lab Sample ID: 160-1317-1

No Detections

Client Sample ID: B2N496

Lab Sample ID: 160-1317-2

No Detections

Client Sample ID: B2N4B7

Lab Sample ID: 160-1317-3

No Detections

Client Sample ID: B2N477

Lab Sample ID: 160-1317-4

No Detections

Client Sample ID: B2N485

Lab Sample ID: 160-1317-5

No Detections

Client Sample ID: B2N7T0

Lab Sample ID: 160-1340-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.31		0.10	0.010	mg/L	1		300.0	Total/NA
Chloride	7.3	D	2.0	0.20	mg/L	10		300.0	Total/NA
Sulfate	23.7	D	5.0	0.50	mg/L	10		300.0	Total/NA

Client Sample ID: B2N781

Lab Sample ID: 160-1340-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.23		0.10	0.010	mg/L	1		300.0	Total/NA
Chloride	15.0	D	2.0	0.20	mg/L	10		300.0	Total/NA
Sulfate	57.0	D	5.0	0.50	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

FEBRUARY 19, 2013 Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Client Sample ID: B2N7M8

Lab Sample ID: 160-1340-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.40		0.10	0.010	mg/L	1		300.0	Total/NA
Chloride	8.2	D	2.0	0.20	mg/L	10		300.0	Total/NA
Sulfate	24.5	D	5.0	0.50	mg/L	10		300.0	Total/NA

Client Sample ID: B2MP93

Lab Sample ID: 160-1340-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.26		0.10	0.010	mg/L	1		300.0	Total/NA
Chloride	12.5	D	2.0	0.20	mg/L	10		300.0	Total/NA
Sulfate	63.3	D	5.0	0.50	mg/L	10		300.0	Total/NA

Client Sample ID: B2N613

Lab Sample ID: 160-1340-5

No Detections

Client Sample ID: B2N614

Lab Sample ID: 160-1340-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.29		0.10	0.010	mg/L	1		300.0	Total/NA
Bromide	0.089	B	0.25	0.025	mg/L	1		300.0	Total/NA
Chloride - DL	11.9	D	4.0	0.40	mg/L	20		300.0	Total/NA
Sulfate - DL	30.8	D	10.0	1.0	mg/L	20		300.0	Total/NA

Client Sample ID: B2N609

Lab Sample ID: 160-1340-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	1.1	C	1.0	0.083	mg/L	1		9034	Total/NA

Client Sample ID: B2N610

Lab Sample ID: 160-1340-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	1.1	C	1.0	0.083	mg/L	1		9034	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC)

Client Sample ID: B2N4T0
Date Collected: 01/18/13 09:10
Date Received: 01/22/13 11:34

Lab Sample ID: 160-1307-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4-Dimethylphenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 14:11	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 14:11	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 14:11	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 14:11	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/22/13 15:26	01/24/13 14:11	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 14:11	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 14:11	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 14:11	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/22/13 15:26	01/24/13 14:11	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 14:11	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 14:11	1
Phenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 14:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	86		54 - 139				01/22/13 15:26	01/24/13 14:11	1
2-Fluorophenol	73		34 - 121				01/22/13 15:26	01/24/13 14:11	1

Client Sample ID: B2N489
Date Collected: 01/18/13 07:15
Date Received: 01/22/13 11:34

Lab Sample ID: 160-1307-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4-Dimethylphenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:19	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:19	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:19	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:19	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/22/13 15:26	01/24/13 15:19	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 15:19	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:19	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:19	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/22/13 15:26	01/24/13 15:19	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:19	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:19	1
Phenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	69		54 - 139				01/22/13 15:26	01/24/13 15:19	1
2-Fluorophenol	62		34 - 121				01/22/13 15:26	01/24/13 15:19	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC)

Client Sample ID: B2N490
Date Collected: 01/18/13 11:55
Date Received: 01/22/13 11:34

Lab Sample ID: 160-1307-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4-Dimethylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:41	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/22/13 15:26	01/24/13 15:41	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:41	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/22/13 15:26	01/24/13 15:41	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/22/13 15:26	01/24/13 15:41	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 15:41	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:41	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/22/13 15:26	01/24/13 15:41	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/22/13 15:26	01/24/13 15:41	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/22/13 15:26	01/24/13 15:41	1
Pentachlorophenol	1.5	U	4.7	1.5	ug/L		01/22/13 15:26	01/24/13 15:41	1
Phenol	1.7	U	4.7	1.7	ug/L		01/22/13 15:26	01/24/13 15:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	86		54 - 139				01/22/13 15:26	01/24/13 15:41	1
2-Fluorophenol	71		34 - 121				01/22/13 15:26	01/24/13 15:41	1

Client Sample ID: B2N481
Date Collected: 01/21/13 12:34
Date Received: 01/23/13 09:00

Lab Sample ID: 160-1317-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.8	2.1	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4,5-Trichlorophenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4,6-Trichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4-Dichlorophenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4-Dimethylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,4-Dinitrophenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 14:28	1
2,6-Dichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 14:28	1
2-Chlorophenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 14:28	1
2-Methylphenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 14:28	1
2-Nitrophenol	0.68	U	4.8	0.68	ug/L		01/24/13 12:09	01/25/13 14:28	1
3 & 4 Methylphenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 14:28	1
4,6-Dinitro-2-methylphenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 14:28	1
4-Chloro-3-methylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 14:28	1
4-Nitrophenol	1.8	U	4.8	1.8	ug/L		01/24/13 12:09	01/25/13 14:28	1
Dinoseb	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 14:28	1
Pentachlorophenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 14:28	1
Phenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 14:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	70		54 - 139				01/24/13 12:09	01/25/13 14:28	1
2-Fluorophenol	62		34 - 121				01/24/13 12:09	01/25/13 14:28	1

FEBRUARY 19, 2013

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC)

Client Sample ID: B2N496
Date Collected: 01/21/13 11:20
Date Received: 01/23/13 09:00

Lab Sample ID: 160-1317-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/24/13 12:09	01/25/13 15:36	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 15:36	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 15:36	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 15:36	1
2,4-Dimethylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 15:36	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 15:36	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 15:36	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 15:36	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 15:36	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/24/13 12:09	01/25/13 15:36	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/24/13 12:09	01/25/13 15:36	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 15:36	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 15:36	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/24/13 12:09	01/25/13 15:36	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 15:36	1
Pentachlorophenol	1.5	U	4.7	1.5	ug/L		01/24/13 12:09	01/25/13 15:36	1
Phenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 15:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72		54 - 139				01/24/13 12:09	01/25/13 15:36	1
2-Fluorophenol	62		34 - 121				01/24/13 12:09	01/25/13 15:36	1

Client Sample ID: B2N4B7
Date Collected: 01/21/13 11:14
Date Received: 01/23/13 09:00

Lab Sample ID: 160-1317-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.8	2.1	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4,5-Trichlorophenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4,6-Trichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4-Dichlorophenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4-Dimethylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,4-Dinitrophenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 15:58	1
2,6-Dichlorophenol	1.2	U	4.8	1.2	ug/L		01/24/13 12:09	01/25/13 15:58	1
2-Chlorophenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 15:58	1
2-Methylphenol	1.4	U	4.8	1.4	ug/L		01/24/13 12:09	01/25/13 15:58	1
2-Nitrophenol	0.69	U	4.8	0.69	ug/L		01/24/13 12:09	01/25/13 15:58	1
3 & 4 Methylphenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 15:58	1
4,6-Dinitro-2-methylphenol	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 15:58	1
4-Chloro-3-methylphenol	1.3	U	4.8	1.3	ug/L		01/24/13 12:09	01/25/13 15:58	1
4-Nitrophenol	1.8	U	4.8	1.8	ug/L		01/24/13 12:09	01/25/13 15:58	1
Dinoseb	1.6	U	4.8	1.6	ug/L		01/24/13 12:09	01/25/13 15:58	1
Pentachlorophenol	1.5	U	4.8	1.5	ug/L		01/24/13 12:09	01/25/13 15:58	1
Phenol	1.7	U	4.8	1.7	ug/L		01/24/13 12:09	01/25/13 15:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		54 - 139				01/24/13 12:09	01/25/13 15:58	1
2-Fluorophenol	56		34 - 121				01/24/13 12:09	01/25/13 15:58	1

TestAmerica St. Louis

FEBRUARY 19, 2013

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC)

Client Sample ID: B2N477
Date Collected: 01/21/13 12:37
Date Received: 01/23/13 09:00

Lab Sample ID: 160-1317-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4-Dimethylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:21	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:21	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:21	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:21	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/24/13 12:09	01/25/13 16:21	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/24/13 12:09	01/25/13 16:21	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:21	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:21	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/24/13 12:09	01/25/13 16:21	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:21	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:21	1
Phenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		54 - 139				01/24/13 12:09	01/25/13 16:21	1
2-Fluorophenol	52		34 - 121				01/24/13 12:09	01/25/13 16:21	1

Client Sample ID: B2N485
Date Collected: 01/21/13 09:50
Date Received: 01/23/13 09:00

Lab Sample ID: 160-1317-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.1	U	4.7	2.1	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4,5-Trichlorophenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4,6-Trichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4-Dichlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4-Dimethylphenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,4-Dinitrophenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:43	1
2,6-Dichlorophenol	1.2	U	4.7	1.2	ug/L		01/24/13 12:09	01/25/13 16:43	1
2-Chlorophenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:43	1
2-Methylphenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:43	1
2-Nitrophenol	0.68	U	4.7	0.68	ug/L		01/24/13 12:09	01/25/13 16:43	1
3 & 4 Methylphenol	1.5	U	4.7	1.5	ug/L		01/24/13 12:09	01/25/13 16:43	1
4,6-Dinitro-2-methylphenol	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:43	1
4-Chloro-3-methylphenol	1.3	U	4.7	1.3	ug/L		01/24/13 12:09	01/25/13 16:43	1
4-Nitrophenol	1.8	U	4.7	1.8	ug/L		01/24/13 12:09	01/25/13 16:43	1
Dinoseb	1.6	U	4.7	1.6	ug/L		01/24/13 12:09	01/25/13 16:43	1
Pentachlorophenol	1.4	U	4.7	1.4	ug/L		01/24/13 12:09	01/25/13 16:43	1
Phenol	1.7	U	4.7	1.7	ug/L		01/24/13 12:09	01/25/13 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		54 - 139				01/24/13 12:09	01/25/13 16:43	1
2-Fluorophenol	53		34 - 121				01/24/13 12:09	01/25/13 16:43	1

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

General Chemistry

Client Sample ID: B2N5X0
Date Collected: 01/18/13 09:47
Date Received: 01/22/13 09:00

Lab Sample ID: 160-1309-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.60	B	1.0	0.083	mg/L			01/25/13 14:59	1

Client Sample ID: B2N5W9
Date Collected: 01/18/13 09:47
Date Received: 01/22/13 09:00

Lab Sample ID: 160-1309-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.60	B	1.0	0.083	mg/L			01/25/13 14:59	1

Client Sample ID: B2N7T0
Date Collected: 01/23/13 09:30
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.31		0.10	0.010	mg/L			01/31/13 22:35	1
Chloride	7.3	D	2.0	0.20	mg/L			01/31/13 22:52	10
Sulfate	23.7	D	5.0	0.50	mg/L			01/31/13 22:52	10

Client Sample ID: B2N781
Date Collected: 01/23/13 10:58
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.23		0.10	0.010	mg/L			02/01/13 00:14	1
Chloride	15.0	D	2.0	0.20	mg/L			02/01/13 00:30	10
Sulfate	57.0	D	5.0	0.50	mg/L			02/01/13 00:30	10

Client Sample ID: B2N7M8
Date Collected: 01/23/13 12:35
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.40		0.10	0.010	mg/L			02/01/13 00:47	1
Chloride	8.2	D	2.0	0.20	mg/L			02/01/13 01:03	10
Sulfate	24.5	D	5.0	0.50	mg/L			02/01/13 01:03	10

Client Sample ID: B2MP93
Date Collected: 01/23/13 14:16
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.26		0.10	0.010	mg/L			02/01/13 01:52	1
Chloride	12.5	D	2.0	0.20	mg/L			02/01/13 02:09	10
Sulfate	63.3	D	5.0	0.50	mg/L			02/01/13 02:09	10

Client Sample ID: B2N613
Date Collected: 01/23/13 07:30
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.010	U	0.10	0.010	mg/L			01/25/13 21:57	1
Chloride	0.020	U	0.20	0.020	mg/L			01/25/13 21:57	1
Bromide	0.025	U	0.25	0.025	mg/L			01/25/13 21:57	1
Sulfate	0.050	U	0.50	0.050	mg/L			01/25/13 21:57	1
Orthophosphate	0.054	U	0.50	0.054	mg/L			01/25/13 21:57	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			01/25/13 21:57	1
Nitrate as N	0.0040	U	0.020	0.0040	mg/L			01/25/13 21:57	1

TestAmerica St. Louis

FEBRUARY 19, 2013

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

General Chemistry

Client Sample ID: B2N614
Date Collected: 01/23/13 15:18
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.29		0.10	0.010	mg/L			01/26/13 03:12	1
Bromide	0.089	B	0.25	0.025	mg/L			01/26/13 03:12	1
Orthophosphate	0.054	U	0.50	0.054	mg/L			01/26/13 03:12	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			01/26/13 03:12	1

Client Sample ID: B2N609
Date Collected: 01/23/13 07:30
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.1	C	1.0	0.083	mg/L			01/28/13 13:37	1

Client Sample ID: B2N610
Date Collected: 01/23/13 15:18
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.1	C	1.0	0.083	mg/L			01/28/13 13:37	1

General Chemistry - DL

Client Sample ID: B2N614
Date Collected: 01/23/13 15:18
Date Received: 01/25/13 09:29

Lab Sample ID: 160-1340-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.9	D	4.0	0.40	mg/L			01/26/13 04:04	20
Sulfate	30.8	D	10.0	1.0	mg/L			01/26/13 04:04	20

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC)

Lab Sample ID: MB 160-28306/1-A

Matrix: Water

Analysis Batch: 29525

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28306

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.2	U	5.0	2.2	ug/L		01/22/13 15:26	01/24/13 13:04	1
2,4,5-Trichlorophenol	1.4	U	5.0	1.4	ug/L		01/22/13 15:26	01/24/13 13:04	1
2,4,6-Trichlorophenol	1.2	U	5.0	1.2	ug/L		01/22/13 15:26	01/24/13 13:04	1
2,4-Dichlorophenol	1.4	U	5.0	1.4	ug/L		01/22/13 15:26	01/24/13 13:04	1
2,4-Dimethylphenol	1.3	U	5.0	1.3	ug/L		01/22/13 15:26	01/24/13 13:04	1
2,4-Dinitrophenol	1.8	U	5.0	1.8	ug/L		01/22/13 15:26	01/24/13 13:04	1
2,6-Dichlorophenol	1.3	U	5.0	1.3	ug/L		01/22/13 15:26	01/24/13 13:04	1
2-Chlorophenol	1.6	U	5.0	1.6	ug/L		01/22/13 15:26	01/24/13 13:04	1
2-Methylphenol	1.5	U	5.0	1.5	ug/L		01/22/13 15:26	01/24/13 13:04	1
2-Nitrophenol	0.72	U	5.0	0.72	ug/L		01/22/13 15:26	01/24/13 13:04	1
3 & 4 Methylphenol	1.6	U	5.0	1.6	ug/L		01/22/13 15:26	01/24/13 13:04	1
4,6-Dinitro-2-methylphenol	1.7	U	5.0	1.7	ug/L		01/22/13 15:26	01/24/13 13:04	1
4-Chloro-3-methylphenol	1.3	U	5.0	1.3	ug/L		01/22/13 15:26	01/24/13 13:04	1
4-Nitrophenol	1.9	U	5.0	1.9	ug/L		01/22/13 15:26	01/24/13 13:04	1
Dinoseb	1.7	U	5.0	1.7	ug/L		01/22/13 15:26	01/24/13 13:04	1
Pentachlorophenol	1.5	U	5.0	1.5	ug/L		01/22/13 15:26	01/24/13 13:04	1
Phenol	1.8	U	5.0	1.8	ug/L		01/22/13 15:26	01/24/13 13:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	79		54 - 139	01/22/13 15:26	01/24/13 13:04	1
2-Fluorophenol	68		34 - 121	01/22/13 15:26	01/24/13 13:04	1

Lab Sample ID: LCS 160-28306/2-A

Matrix: Water

Analysis Batch: 29525

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28306

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	100	99.7		ug/L		100	48 - 140
2,4,5-Trichlorophenol	100	96.1		ug/L		96	49 - 140
2,4,6-Trichlorophenol	100	91.3		ug/L		91	51 - 140
2,4-Dichlorophenol	100	90.7		ug/L		91	43 - 131
2,4-Dimethylphenol	100	91.3		ug/L		91	38 - 130
2,4-Dinitrophenol	100	100		ug/L		100	32 - 140
2,6-Dichlorophenol	100	91.6		ug/L		92	45 - 136
2-Chlorophenol	100	92.8		ug/L		93	35 - 139
2-Methylphenol	100	92.0		ug/L		92	42 - 131
2-Nitrophenol	100	97.7		ug/L		98	44 - 134
3 & 4 Methylphenol	200	187		ug/L		93	43 - 133
4,6-Dinitro-2-methylphenol	100	95.0		ug/L		95	52 - 140
4-Chloro-3-methylphenol	100	95.8		ug/L		96	46 - 139
4-Nitrophenol	100	101		ug/L		101	48 - 140
Dinoseb	100	107		ug/L		107	49 - 140
Pentachlorophenol	100	109		ug/L		109	47 - 140
Phenol	100	88.9		ug/L		89	41 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	102		54 - 139

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: LCS 160-28306/2-A

Matrix: Water

Analysis Batch: 29525

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28306

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	89		34 - 121

Lab Sample ID: 160-1307-1 MS

Matrix: Water

Analysis Batch: 29525

Client Sample ID: B2N4T0

Prep Type: Total/NA

Prep Batch: 28306

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	2.1	U	94.8	89.1		ug/L		94	54 - 150
2,4,5-Trichlorophenol	1.3	U	94.8	82.4		ug/L		87	53 - 149
2,4,6-Trichlorophenol	1.2	U	94.8	77.5		ug/L		82	53 - 150
2,4-Dichlorophenol	1.4	U	94.8	74.0		ug/L		78	43 - 140
2,4-Dimethylphenol	1.2	U	94.8	75.7		ug/L		80	44 - 143
2,4-Dinitrophenol	1.7	U	94.8	86.6		ug/L		91	25 - 150
2,6-Dichlorophenol	1.2	U	94.8	75.0		ug/L		79	46 - 145
2-Chlorophenol	1.6	U	94.8	75.0		ug/L		79	47 - 131
2-Methylphenol	1.4	U	94.8	74.8		ug/L		79	44 - 140
2-Nitrophenol	0.68	U	94.8	79.8		ug/L		84	44 - 145
3 & 4 Methylphenol	1.5	U	190	153		ug/L		81	44 - 142
4,6-Dinitro-2-methylphenol	1.6	U	94.8	83.3		ug/L		88	54 - 147
4-Chloro-3-methylphenol	1.3	U	94.8	81.9		ug/L		86	50 - 145
4-Nitrophenol	1.8	U	94.8	89.1		ug/L		94	54 - 150
Dinoseb	1.6	U	94.8	96.9		ug/L		102	56 - 150
Pentachlorophenol	1.4	U	94.8	106		ug/L		111	54 - 160
Phenol	1.7	U	94.8	71.5		ug/L		75	45 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	96		54 - 139
2-Fluorophenol	78		34 - 121

Lab Sample ID: 160-1307-1 MSD

Matrix: Water

Analysis Batch: 29525

Client Sample ID: B2N4T0

Prep Type: Total/NA

Prep Batch: 28306

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,4,6-Tetrachlorophenol	2.1	U	94.7	89.9		ug/L		95	54 - 150	1	20
2,4,5-Trichlorophenol	1.3	U	94.7	84.8		ug/L		90	53 - 149	3	20
2,4,6-Trichlorophenol	1.2	U	94.7	80.2		ug/L		85	53 - 150	3	20
2,4-Dichlorophenol	1.4	U	94.7	76.3		ug/L		81	43 - 140	3	20
2,4-Dimethylphenol	1.2	U	94.7	77.9		ug/L		82	44 - 143	3	20
2,4-Dinitrophenol	1.7	U	94.7	86.9		ug/L		92	25 - 150	0	20
2,6-Dichlorophenol	1.2	U	94.7	77.3		ug/L		82	46 - 145	3	20
2-Chlorophenol	1.6	U	94.7	77.0		ug/L		81	47 - 131	3	20
2-Methylphenol	1.4	U	94.7	76.9		ug/L		81	44 - 140	3	20
2-Nitrophenol	0.68	U	94.7	82.3		ug/L		87	44 - 145	3	20
3 & 4 Methylphenol	1.5	U	189	157		ug/L		83	44 - 142	3	20
4,6-Dinitro-2-methylphenol	1.6	U	94.7	83.1		ug/L		88	54 - 147	0	20
4-Chloro-3-methylphenol	1.3	U	94.7	84.2		ug/L		89	50 - 145	3	20
4-Nitrophenol	1.8	U	94.7	88.7		ug/L		94	54 - 150	1	20

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: 160-1307-1 MSD

Matrix: Water

Analysis Batch: 29525

Client Sample ID: B2N4T0

Prep Type: Total/NA

Prep Batch: 28306

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dinoseb	1.6	U	94.7	93.7		ug/L		99	56 - 150	3	20
Pentachlorophenol	1.4	U	94.7	97.3		ug/L		103	54 - 160	8	20
Phenol	1.7	U	94.7	73.2		ug/L		77	45 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2,4,6-Tribromophenol	96		54 - 139								
2-Fluorophenol	78		34 - 121								

Lab Sample ID: MB 160-28775/1-A

Matrix: Water

Analysis Batch: 29522

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	2.2	U	5.0	2.2	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4,5-Trichlorophenol	1.4	U	5.0	1.4	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4,6-Trichlorophenol	1.2	U	5.0	1.2	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4-Dichlorophenol	1.4	U	5.0	1.4	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4-Dimethylphenol	1.3	U	5.0	1.3	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,4-Dinitrophenol	1.8	U	5.0	1.8	ug/L		01/24/13 12:09	01/25/13 13:43	1
2,6-Dichlorophenol	1.3	U	5.0	1.3	ug/L		01/24/13 12:09	01/25/13 13:43	1
2-Chlorophenol	1.6	U	5.0	1.6	ug/L		01/24/13 12:09	01/25/13 13:43	1
2-Methylphenol	1.5	U	5.0	1.5	ug/L		01/24/13 12:09	01/25/13 13:43	1
2-Nitrophenol	0.72	U	5.0	0.72	ug/L		01/24/13 12:09	01/25/13 13:43	1
3 & 4 Methylphenol	1.6	U	5.0	1.6	ug/L		01/24/13 12:09	01/25/13 13:43	1
4,6-Dinitro-2-methylphenol	1.7	U	5.0	1.7	ug/L		01/24/13 12:09	01/25/13 13:43	1
4-Chloro-3-methylphenol	1.3	U	5.0	1.3	ug/L		01/24/13 12:09	01/25/13 13:43	1
4-Nitrophenol	1.9	U	5.0	1.9	ug/L		01/24/13 12:09	01/25/13 13:43	1
Dinoseb	1.7	U	5.0	1.7	ug/L		01/24/13 12:09	01/25/13 13:43	1
Pentachlorophenol	1.5	U	5.0	1.5	ug/L		01/24/13 12:09	01/25/13 13:43	1
Phenol	1.8	U	5.0	1.8	ug/L		01/24/13 12:09	01/25/13 13:43	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	59		54 - 139				01/24/13 12:09	01/25/13 13:43	1
2-Fluorophenol	51		34 - 121				01/24/13 12:09	01/25/13 13:43	1

Lab Sample ID: LCS 160-28775/2-A

Matrix: Water

Analysis Batch: 29522

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	100	65.5		ug/L		66	48 - 140
2,4,5-Trichlorophenol	100	56.5		ug/L		56	49 - 140
2,4,6-Trichlorophenol	100	52.8		ug/L		53	51 - 140
2,4-Dichlorophenol	100	50.3		ug/L		50	43 - 131
2,4-Dimethylphenol	100	42.1		ug/L		42	38 - 130
2,4-Dinitrophenol	100	66.2		ug/L		66	32 - 140
2,6-Dichlorophenol	100	50.8		ug/L		51	45 - 136
2-Chlorophenol	100	51.6		ug/L		52	35 - 139

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: LCS 160-28775/2-A

Matrix: Water

Analysis Batch: 29522

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylphenol	100	50.8		ug/L		51	42 - 131
2-Nitrophenol	100	53.7		ug/L		54	44 - 134
3 & 4 Methylphenol	200	104		ug/L		52	43 - 133
4,6-Dinitro-2-methylphenol	100	65.4		ug/L		65	52 - 140
4-Chloro-3-methylphenol	100	56.3		ug/L		56	46 - 139
4-Nitrophenol	100	74.2		ug/L		74	48 - 140
Dinoseb	100	76.8		ug/L		77	49 - 140
Pentachlorophenol	100	76.8		ug/L		77	47 - 140
Phenol	100	50.8		ug/L		51	41 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	69		54 - 139
2-Fluorophenol	50		34 - 121

Lab Sample ID: 160-1317-1 MS

Matrix: Water

Analysis Batch: 29522

Client Sample ID: B2N481

Prep Type: Total/NA

Prep Batch: 28775

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	2.1	U	95.0	80.7		ug/L		85	54 - 150
2,4,5-Trichlorophenol	1.3	U	94.9	74.9		ug/L		79	53 - 149
2,4,6-Trichlorophenol	1.2	U	95.0	71.5		ug/L		75	53 - 150
2,4-Dichlorophenol	1.4	U	95.0	68.5		ug/L		72	43 - 140
2,4-Dimethylphenol	1.3	U	95.0	68.4		ug/L		72	44 - 143
2,4-Dinitrophenol	1.7	U	95.0	76.9		ug/L		81	25 - 150
2,6-Dichlorophenol	1.2	U	95.0	69.3		ug/L		73	46 - 145
2-Chlorophenol	1.6	U	95.0	69.1		ug/L		73	47 - 131
2-Methylphenol	1.4	U	95.0	69.3		ug/L		73	44 - 140
2-Nitrophenol	0.68	U	95.0	73.2		ug/L		77	44 - 145
3 & 4 Methylphenol	1.5	U	190	142		ug/L		75	44 - 142
4,6-Dinitro-2-methylphenol	1.6	U	95.0	75.7		ug/L		80	54 - 147
4-Chloro-3-methylphenol	1.3	U	95.0	74.7		ug/L		79	50 - 145
4-Nitrophenol	1.8	U	95.0	85.7		ug/L		90	54 - 150
Dinoseb	1.6	U	95.0	90.8		ug/L		96	56 - 150
Pentachlorophenol	1.5	U	95.0	99.6		ug/L		105	54 - 160
Phenol	1.7	U	95.0	68.6		ug/L		72	45 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	86		54 - 139
2-Fluorophenol	70		34 - 121

Lab Sample ID: 160-1317-1 MSD

Matrix: Water

Analysis Batch: 29522

Client Sample ID: B2N481

Prep Type: Total/NA

Prep Batch: 28775

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,3,4,6-Tetrachlorophenol	2.1	U	95.0	73.2		ug/L		77	54 - 150	10	20
2,4,5-Trichlorophenol	1.3	U	95.0	66.4		ug/L		70	53 - 149	12	20

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC) (Continued)

Lab Sample ID: 160-1317-1 MSD

Matrix: Water

Analysis Batch: 29522

Client Sample ID: B2N481

Prep Type: Total/NA

Prep Batch: 28775

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,6-Trichlorophenol	1.2	U	95.0	62.7		ug/L		66	53 - 150	13	20
2,4-Dichlorophenol	1.4	U	95.0	59.3		ug/L		62	43 - 140	14	20
2,4-Dimethylphenol	1.3	U	95.0	60.4		ug/L		64	44 - 143	12	20
2,4-Dinitrophenol	1.7	U	95.0	70.5		ug/L		74	25 - 150	9	20
2,6-Dichlorophenol	1.2	U	95.0	60.1		ug/L		63	46 - 145	14	20
2-Chlorophenol	1.6	U	95.0	60.1		ug/L		63	47 - 131	14	20
2-Methylphenol	1.4	U	95.0	60.1		ug/L		63	44 - 140	14	20
2-Nitrophenol	0.68	U	95.0	63.4		ug/L		67	44 - 145	14	20
3 & 4 Methylphenol	1.5	U	190	123		ug/L		65	44 - 142	14	20
4,6-Dinitro-2-methylphenol	1.6	U	95.0	70.2		ug/L		74	54 - 147	8	20
4-Chloro-3-methylphenol	1.3	U	95.0	66.2		ug/L		70	50 - 145	12	20
4-Nitrophenol	1.8	U	95.0	78.9		ug/L		83	54 - 150	8	20
Dinoseb	1.6	U	95.0	80.6		ug/L		85	56 - 150	12	20
Pentachlorophenol	1.5	U	95.0	81.4		ug/L		86	54 - 160	20	20
Phenol	1.7	U	95.0	58.7		ug/L		62	45 - 130	16	20
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
2,4,6-Tribromophenol	78		54 - 139								
2-Fluorophenol	60		34 - 121								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-30916/9

Matrix: Water

Analysis Batch: 30916

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.010	U	0.10	0.010	mg/L			01/31/13 14:30	1
Chloride	0.020	U	0.20	0.020	mg/L			01/31/13 14:30	1
Sulfate	0.050	U	0.50	0.050	mg/L			01/31/13 14:30	1

Lab Sample ID: LCS 160-30916/10

Matrix: Water

Analysis Batch: 30916

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.00	0.985		mg/L		98	90 - 110
Chloride	2.00	1.92		mg/L		96	90 - 110
Sulfate	8.00	7.57		mg/L		95	90 - 110

Lab Sample ID: 160-1340-1 MS

Matrix: Water

Analysis Batch: 30916

Client Sample ID: B2N7T0

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.31		2.00	2.33		mg/L		101	90 - 110

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 160-1340-1 MS

Matrix: Water

Analysis Batch: 30916

Client Sample ID: B2N7T0

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.3	D	20.0	26.69		mg/L		97	90 - 110
Sulfate	23.7	D	40.0	61.85		mg/L		95	90 - 110

Lab Sample ID: 160-1340-1 DU

Matrix: Water

Analysis Batch: 30916

Client Sample ID: B2N7T0

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.31		0.316		mg/L		0.7	20

Lab Sample ID: 160-1340-1 DU

Matrix: Water

Analysis Batch: 30916

Client Sample ID: B2N7T0

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	7.3	D	7.35		mg/L		1	20
Sulfate	23.7	D	23.51		mg/L		0.9	20

Lab Sample ID: MB 160-31887/9

Matrix: Water

Analysis Batch: 31887

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.010	U	0.10	0.010	mg/L			01/25/13 20:12	1
Chloride	0.020	U	0.20	0.020	mg/L			01/25/13 20:12	1
Bromide	0.025	U	0.25	0.025	mg/L			01/25/13 20:12	1
Sulfate	0.050	U	0.50	0.050	mg/L			01/25/13 20:12	1
Orthophosphate	0.054	U	0.50	0.054	mg/L			01/25/13 20:12	1
Nitrite as N	0.0030	U	0.020	0.0030	mg/L			01/25/13 20:12	1
Nitrate as N	0.0040	U	0.020	0.0040	mg/L			01/25/13 20:12	1

Lab Sample ID: LCS 160-31887/10

Matrix: Water

Analysis Batch: 31887

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.00	0.954		mg/L		95	90 - 110
Chloride	2.00	1.91		mg/L		96	90 - 110
Bromide	2.00	1.95		mg/L		98	90 - 110
Sulfate	8.00	7.72		mg/L		96	90 - 110
Orthophosphate	8.00	7.87		mg/L		98	90 - 110
Nitrite as N	0.160	0.155		mg/L		97	90 - 110
Nitrate as N	0.400	0.392		mg/L		98	90 - 110

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 160-1340-5 MS

Matrix: Water

Analysis Batch: 31887

Client Sample ID: B2N613

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.010	U	2.00	2.01		mg/L		100	90 - 110
Chloride	0.020	U	2.00	1.94		mg/L		97	90 - 110
Bromide	0.025	U	2.00	1.94		mg/L		97	90 - 110
Sulfate	0.050	U	4.00	3.85		mg/L		96	90 - 110
Orthophosphate	0.054	U	4.00	3.97		mg/L		99	90 - 110
Nitrite as N	0.0030	U	0.100	0.100		mg/L		100	90 - 110
Nitrate as N	0.0040	U	0.400	0.385		mg/L		96	90 - 110

Lab Sample ID: 160-1340-5 DU

Matrix: Water

Analysis Batch: 31887

Client Sample ID: B2N613

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.010	U	0.010	U	mg/L		NC	20
Chloride	0.020	U	0.020	U	mg/L		NC	20
Bromide	0.025	U	0.025	U	mg/L		NC	20
Sulfate	0.050	U	0.050	U	mg/L		NC	20
Orthophosphate	0.054	U	0.054	U	mg/L		NC	20
Nitrite as N	0.0030	U	0.0030	U	mg/L		NC	20
Nitrate as N	0.0040	U	0.0040	U	mg/L		NC	20

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 160-29373/1

Matrix: Water

Analysis Batch: 29373

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.083	U	1.0	0.083	mg/L			01/25/13 14:59	1

Lab Sample ID: LCS 160-29373/2

Matrix: Water

Analysis Batch: 29373

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	10.1	9.80		mg/L		97	70 - 130

Lab Sample ID: 160-1309-1 MS

Matrix: Water

Analysis Batch: 29373

Client Sample ID: B2N5X0

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	0.60	B	10.1	9.80		mg/L		91	70 - 130

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 160-1309-1 DU
Matrix: Water
Analysis Batch: 29373

Client Sample ID: B2N5X0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	0.60	B	0.600	B	mg/L		0	20

Lab Sample ID: MB 160-29578/1
Matrix: Water
Analysis Batch: 29578

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.920	B	1.0	0.083	mg/L			01/28/13 13:37	1

Lab Sample ID: LCS 160-29578/2
Matrix: Water
Analysis Batch: 29578

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	10.1	10.12		mg/L		101	70 - 130

Lab Sample ID: 160-1340-7 MS
Matrix: Water
Analysis Batch: 29578

Client Sample ID: B2N609
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.1	C	10.1	10.72		mg/L		95	70 - 130

Lab Sample ID: 160-1340-7 DU
Matrix: Water
Analysis Batch: 29578

Client Sample ID: B2N609
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	1.1	C	1.12		mg/L		0	20

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

GC Semi VOA

Prep Batch: 28306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1307-1	B2N4T0	Total/NA	Water	3520C	
160-1307-1 MS	B2N4T0	Total/NA	Water	3520C	
160-1307-1 MSD	B2N4T0	Total/NA	Water	3520C	
160-1307-2	B2N489	Total/NA	Water	3520C	
160-1307-3	B2N490	Total/NA	Water	3520C	
LCS 160-28306/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 160-28306/1-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 28775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1317-1	B2N481	Total/NA	Water	3520C	
160-1317-1 MS	B2N481	Total/NA	Water	3520C	
160-1317-1 MSD	B2N481	Total/NA	Water	3520C	
160-1317-2	B2N496	Total/NA	Water	3520C	
160-1317-3	B2N4B7	Total/NA	Water	3520C	
160-1317-4	B2N477	Total/NA	Water	3520C	
160-1317-5	B2N485	Total/NA	Water	3520C	
LCS 160-28775/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 160-28775/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 29522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1317-1	B2N481	Total/NA	Water	8041A	28775
160-1317-1 MS	B2N481	Total/NA	Water	8041A	28775
160-1317-1 MSD	B2N481	Total/NA	Water	8041A	28775
160-1317-2	B2N496	Total/NA	Water	8041A	28775
160-1317-3	B2N4B7	Total/NA	Water	8041A	28775
160-1317-4	B2N477	Total/NA	Water	8041A	28775
160-1317-5	B2N485	Total/NA	Water	8041A	28775
LCS 160-28775/2-A	Lab Control Sample	Total/NA	Water	8041A	28775
MB 160-28775/1-A	Method Blank	Total/NA	Water	8041A	28775

Analysis Batch: 29525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1307-1	B2N4T0	Total/NA	Water	8041A	28306
160-1307-1 MS	B2N4T0	Total/NA	Water	8041A	28306
160-1307-1 MSD	B2N4T0	Total/NA	Water	8041A	28306
160-1307-2	B2N489	Total/NA	Water	8041A	28306
160-1307-3	B2N490	Total/NA	Water	8041A	28306
LCS 160-28306/2-A	Lab Control Sample	Total/NA	Water	8041A	28306
MB 160-28306/1-A	Method Blank	Total/NA	Water	8041A	28306

General Chemistry

Analysis Batch: 29373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1309-1	B2N5X0	Total/NA	Water	9034	
160-1309-1 DU	B2N5X0	Total/NA	Water	9034	
160-1309-1 MS	B2N5X0	Total/NA	Water	9034	
160-1309-2	B2N5W9	Total/NA	Water	9034	

TestAmerica St. Louis

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

General Chemistry (Continued)

Analysis Batch: 29373 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-29373/2	Lab Control Sample	Total/NA	Water	9034	
MB 160-29373/1	Method Blank	Total/NA	Water	9034	

Analysis Batch: 29578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1340-7	B2N609	Total/NA	Water	9034	
160-1340-7 DU	B2N609	Total/NA	Water	9034	
160-1340-7 MS	B2N609	Total/NA	Water	9034	
160-1340-8	B2N610	Total/NA	Water	9034	
LCS 160-29578/2	Lab Control Sample	Total/NA	Water	9034	
MB 160-29578/1	Method Blank	Total/NA	Water	9034	

Analysis Batch: 30916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1340-1	B2N7T0	Total/NA	Water	300.0	
160-1340-1	B2N7T0	Total/NA	Water	300.0	
160-1340-1 DU	B2N7T0	Total/NA	Water	300.0	
160-1340-1 DU	B2N7T0	Total/NA	Water	300.0	
160-1340-1 MS	B2N7T0	Total/NA	Water	300.0	
160-1340-1 MS	B2N7T0	Total/NA	Water	300.0	
160-1340-2	B2N781	Total/NA	Water	300.0	
160-1340-2	B2N781	Total/NA	Water	300.0	
160-1340-3	B2N7M8	Total/NA	Water	300.0	
160-1340-3	B2N7M8	Total/NA	Water	300.0	
160-1340-4	B2MP93	Total/NA	Water	300.0	
160-1340-4	B2MP93	Total/NA	Water	300.0	
LCS 160-30916/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-30916/9	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 31887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-1340-5	B2N613	Total/NA	Water	300.0	
160-1340-5 DU	B2N613	Total/NA	Water	300.0	
160-1340-5 MS	B2N613	Total/NA	Water	300.0	
160-1340-6	B2N614	Total/NA	Water	300.0	
160-1340-6 - DL	B2N614	Total/NA	Water	300.0	
LCS 160-31887/10	Lab Control Sample	Total/NA	Water	300.0	
MB 160-31887/9	Method Blank	Total/NA	Water	300.0	

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-1307-1
SDG: SL1352

Method: 8041A - Phenols (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TBP (54-139)	2FP (34-121)
160-1307-1	B2N4T0	86	73
160-1307-1 MS	B2N4T0	96	78
160-1307-1 MSD	B2N4T0	96	78
160-1307-2	B2N489	69	62
160-1307-3	B2N490	86	71
160-1317-1	B2N481	70	62
160-1317-1 MS	B2N481	86	70
160-1317-1 MSD	B2N481	78	60
160-1317-2	B2N496	72	62
160-1317-3	B2N4B7	65	56
160-1317-4	B2N477	61	52
160-1317-5	B2N485	61	53
LCS 160-28306/2-A	Lab Control Sample	102	89
LCS 160-28775/2-A	Lab Control Sample	69	50
MB 160-28306/1-A	Method Blank	79	68
MB 160-28775/1-A	Method Blank	59	51

Surrogate Legend

TBP = 2,4,6-Tribromophenol

2FP = 2-Fluorophenol